

PATENT SPECIFICATION

DRAWINGS ATTACHED

Inventor: RONALD ERIC EMMENT

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COMPLETE SPECIFICATION

Improvements relating to Storage Bins

We, WEST LONDON IRON & WIRE WORKS LIMITED, a British Company of 57-67, Stirling Road, Acton, London, W.3., do hereby declare the invention, for which we pray that a Patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to storage bins and aims to provide a bin with removable internal partitions and shelves so that a series of different sized pockets can be arranged as required.

In many industries, hospitals, etc., it is so often desired to have storage bins which can easily be altered internally to suite particular needs and this invention seeks to meet this problem.

The present invention consists of a storage bin comprising an upright box-like rectangular frame having openings in its top and base and two sides disposed symmetrically opposite each other, removable elements engageable in a pair of such openings in the top and base to form vertical partitions parallel to the two sides, and further removable elements engageable between the vertical partitions and between the partitions and the sides parallel to them, so formed to make horizontal shelves, the further elements being of assorted widths to correspond with the spacing of the first mentioned elements and the sides parallel to them when engaged, and in which the engagements of the elements are effected by projections from their sides or ends introduced into said openings or openings in said vertical partitions.

For the purpose of erection, the vertical partition is provided with projections at both ends, the projections at one end being first placed in the selected position within the framework and the partition then

“swung” or moved angularly so that the other end can engage the corresponding opening. In a somewhat similar manner, the horizontal shelves have projections and the projection(s) one side side are first placed in the desired position and an angular movement is employed to arrange for the projections on the other side to rest or hook into the right place.

The storage structure as well as the vertical and horizontal partitions may be fabricated of metal rods or wire in a grid-like manner.

One convenient form of the invention is illustrated in the accompanying drawings in which:—

Fig. 1 is an exploded perspective view of the main frame work with illustrations of vertical partitions and horizontal shelves.

Fig. 2 illustrates a front elevation of an assembled storage bin, and

Fig. 3 illustrates a manner in which the horizontal shelves are supported within the framework.

In the form illustrated, the frame-work 1 is fabricated from metal rods welded together at the crossings, and, when finished, coated with a plastics material. The framework 1 is in the form of an open box-like structure intended to be stood on its base or suspended from a wall. The form shown is made from two different gauges of metal rods, the outer edges 2 being of heavier gauge than the surfaces which form the back and sides. It will be seen that, generally speaking, the rods form a number of rectangles and in the parts which will form the top and bottom of the framework there are provided a series of pairs of rods closely related to each other so as to form narrow gaps 3. The object of these gaps 3 is for the purpose of providing supports for vertical partitions 4, the narrow gaps 3 in the top

[Price 5s. 0d.]

and in the base of the framework corresponding to each other. The vertical partitions 4 are also made from metal rods, and, in the form illustrated, the two upright ends are arranged to slightly extend to form projections, the upper projections 5 arranged to project slightly further than the bottom projections 6. The object of these projections 5 and 6 is to allow the vertical partitions to be held in position within the framework, the projections extending into the narrow gaps 3 formed by the closely related rods. It will be seen that the vertical partitions 4 may be placed in a number of different positions within the framework and in the form shown there are five different positions. The form illustrated shows only two vertical partitions and if these are placed in other gaps, the distances between the verticals will vary. The object of having longer projections 5 in the upper part will enable the partition to be pushed upwards so as to allow the partition to be moved to a vertical position and enable the shorter projections 6 to drop within the gaps 3 in the base of the framework. When the vertical partitions are placed in position it will be possible to arrange the shelving. It will be seen that the horizontally arranged rods in the sides of the framework correspond with each other and, also, when the vertical partitions 4 are placed in position, the horizontal rods will correspond in position. The shelves may be of different sizes arranged to fit across the width of each division formed by the vertical partition(s) 4 and each shelf will rest upon the horizontal rods. The shelves may be fabricated from metal rods and examples are illustrated in Figs. 1 and 3. Extensions or hooks 7 are provided and these will extend into the framework and the vertical partitions and thus form the shelves. The vertical partition may have to support two shelves at the same height and, for this purpose, it is arranged that the pair of extensions or hooks 7 on the one side are not exactly opposite the hooks on the other side of the same shelf. This feature is more clearly seen in Fig. 3 where two shelves are arranged on the same horizontal rod on the vertical partition. A number of shelves can be arranged in any particular section. In Fig. 2 three horizontal shelves are positioned, but any one, two or three may be removed to suit the particular purpose required. Shelves may be provided of different widths to be adaptable to the distances between the positions of the vertical partitions. In the form illustrated, the vertical partitions are arranged to provide for two narrow sets of shelves and a section having wider shelves but it is possible to arrange for a number of shelves of differing sizes arranged to extend

right across the framework or to the different sizes which can be arranged between the gaps 3. The shelves may be conveniently made to fit from the front to the back of the framework.

The framework shown in Fig. 2 is provided with supports 8 to enable the framework to be suspended from a wall.

When the whole structure is covered with a plastics material it makes the storage bin most convenient for hospital use.

Various modifications may be introduced. The framework need not necessarily have a back, i.e. it can consist of a four-sided framework so that the actual wall will form the back of the bin in use.

The form shown has open mesh to form the sides, the back, the vertical partition and the shelves but sheet material may well be adapted with openings to receive the various projections or supports.

If desired, a hinged or other door may be provided. The size of the framework may be varied to suit any particular requirements.

In a still further modification the sides and back of the storage structure may be constructed from separate panels which may be modules dimensionally matching the other elements involved and capable of being clipped and/or bolted together. In this way, the entire structure could be supplied in a "knocked-down" condition and this would ease packing and transport without affecting the finished product.

WHAT WE CLAIM IS:—

1. A storage bin comprising an upright box-like rectangular frame having openings in its top and base and two sides disposed symmetrically opposite each other, removable elements engageable in a pair of such openings in the top and base to form vertical partitions parallel to the two sides, and further removable elements engageable between the vertical partitions and between the partitions and the sides parallel to them, so formed to make horizontal shelves, the further elements being of assorted widths to correspond with the spacing of the first mentioned elements and the sides parallel to them when engaged, and in which the engagements of the elements are effected by projections from their sides or ends introduced into said openings or openings in said vertical partitions.

2. A storage bin as claimed in claim 1 in which the vertical partitions are provided with projections at both ends, the said projections being arranged to engage the openings in the top and base of the frame.

3. A storage bin as claimed in claim 2 having the said projections at the upper end of the vertical partition longer than the projections which will engage the base

of the frame.

4. A storage bin as claimed in any of claims 1, 2 or 3 having the shelves with at least a pair of projections on each side adapted to engage the frame and/or one of the vertical partitions so as to form horizontal shelves.

5. A storage bin as claimed in claim 4, the projections on the shelves being hooked to engage parallel horizontal rods or openings.

6. A storage bin as claimed in any of the preceding claims made from coated metal rods.

15 7. A storage bin as claimed in any of the preceding claims in which the top and base of the frame are provided with pairs of parallel rods closely related to each other

and arranged at suitable positions, the gaps between the said rods adapted to receive the projections from the vertical partitions. 20

8. A storage bin as claimed in claim 1 having its top and base and two sides formed by separate panels bolted and/or clipped together. 25

9. A storage bin substantially as hereinbefore described with reference to the accompanying drawings.

CLEVELAND AND JOHNSON,
Agents for the Applicants,
Chartered Patent Agents,
Chancery House,
Chancery Lane,
London, W.C.2.

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2 SHEETS
This drawing is a reproduction of
the Original on a reduced scale.
SHEET 1

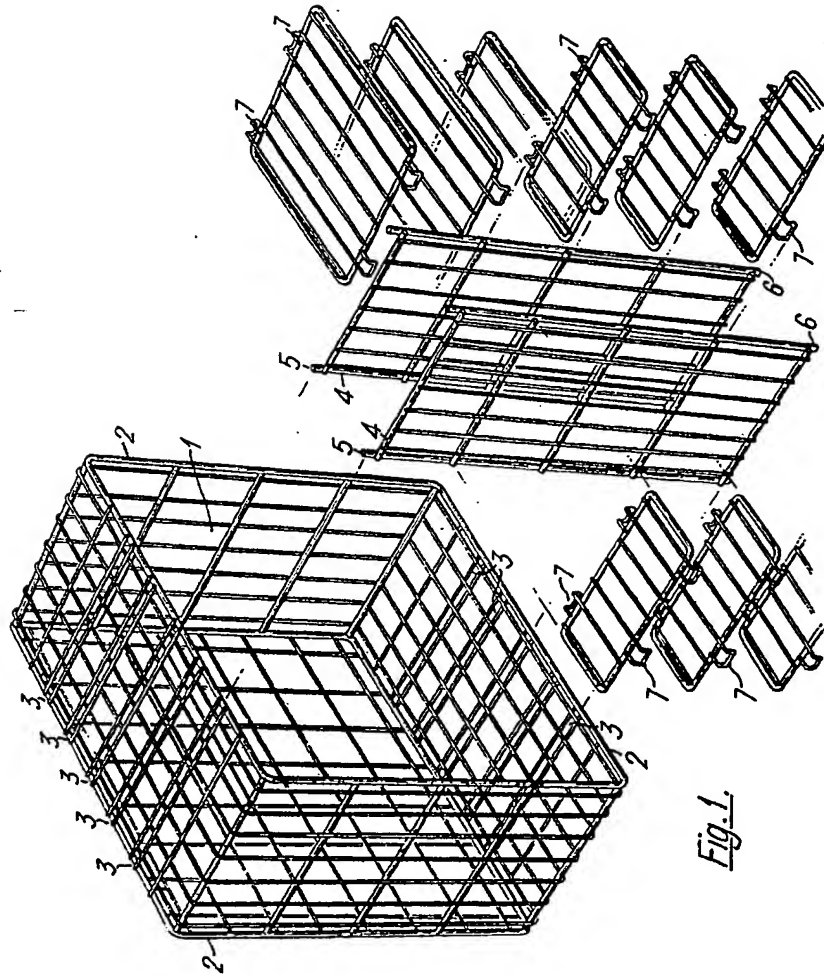


Fig. 1.

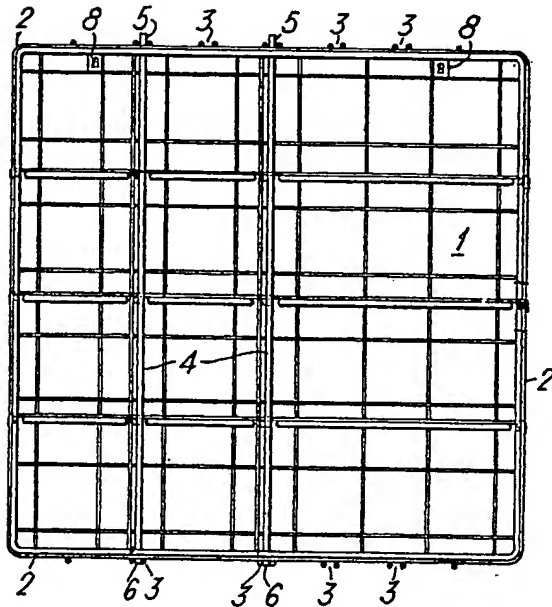


Fig. 2.

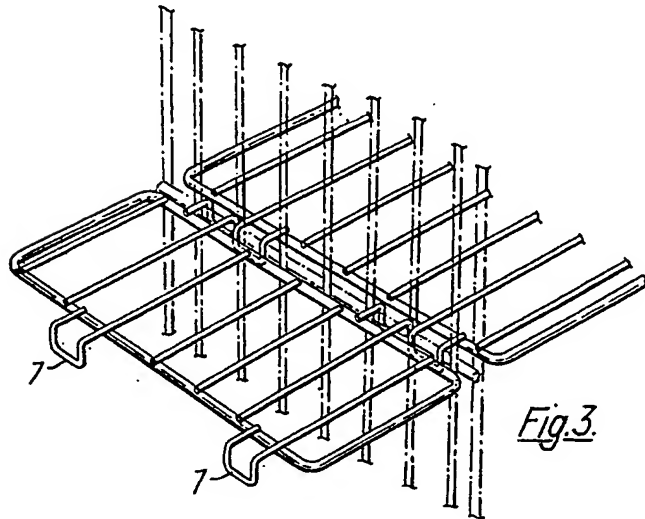


Fig. 3.